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Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Andrew C. Gallagher, et al

METHOD AND APPARATUS TO EXTEND
THE EFFECTIVE DYNAMIC RANGE OF AN
IMAGE SENSING DEVICE

Serial No. US 09/615,398

Filed 13 July 2000

Group Art Unit: 2722

Batch:

Allowed:

Examiner:

I hereby certify that this correspondence is being deposited today with the
United States Postal Service as first class mail in an envelope addressed to
Commissioner for Patents, Washington, D.C. 20231.

Robin G. Reeves
Robin G. Reeves

10/27/00
Date

Commissioner for Patents
Washington, D.C. 20231

Sir:

PRELIMINARY AMENDMENT

Please add the following new claims 36 - 48:

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-- 36. An image capture system providing an extended
effective dynamic range, said system comprising:

an image sensing device having standard photosites with a
predetermined standard response to a light exposure and non-standard photosites
with a slower response to the same light exposure;

an optical section for exposing the image sensing device to
image light, thereby causing the image sensing device to generate an image
signal;

means for converting the image signal into digital image
signals corresponding to the output of the standard and non-standard photosites;
and

a processor that (a) processes the digital image signals
against a plurality of thresholds, including a first high exposure response
threshold for the standard photosites and a second low exposure response
threshold for the non-standard photosites, (b) replaces the digital image signals
from standard photosites exceeding the first high exposure response threshold
with a combination of the digital image signals from a neighborhood of non-

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